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37 CFR 1.7(c) FILING RECEIPT AND TRANSMITTAL LETTER WITH AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

Neifeld Docket No.: OSEMDB15UPCTUS

Client Ref::

US/PCT Application/Patent No.:10/579,537

US/PCT File/Issue Date: 5/16/2006

Priority Data:

USPTO Confirmation No.:

Inventor:BRADDOCK

Title: Nitride Metal Oxide Semiconductor Integrated Transistor Devices

THE FOLLOWING HAS BEEN RECEIVED IN THE U.S. PATENT OFFICE ON THE DATE STAMPED HEREON:

37 CFR 1.7(c) Filing Receipt and Transmittal Letter with Authorization to Charge Deposit Account (in duplicate)

37 CFR 1.97 Information Disclosure Statement and Authorization to Charge Deposit Account (in duplicate)

37 CFR 1.98(A)(1) Reference Citation Listing References U-001 - U-067, P-001 - P-005, F-001 - F-007, and O-001 - O-025 (8 pages)

Copies of References F-001 - F-007 and O-001 - O-025

Respectfully Submitted.

Bachard A. Neifeld

Registration No.35,299

Attorney of Record

PcLaw Matter

Lawyer

5010

Amount Explanation Date Entered

Initials

Fees:

Fees:

Disbursements: PcLaw Matter

G/L Account Amount

Explanation

Date Entered

Initials

Printed: September 30, 2005 (1:31pm)

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Neifeld Ref: OSEMDB15UPCTUS

IN THE CHIEF TATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Braddock

INT APP. NO: 10/579,537

FILED: May 16, 2006

FOR: Nitride Metal Oxide Semiconductor Integrated Transistor Devices

GAU: Unknown

EXAMINER: Unknown

PTO CONFIRMATION NO. Unknown

	37 CFR 1.97 INFORMATION DI	SCLOSURE STATEMENT
	ASSISTANT COMMISSIONER FOR PATENTS ALEXANDRIA, VA 22313	
	SIR: Applicant(s) wish to disclose the following information.	
_	REFERENCES The applicant(s) wish to make of record the references listed on the being submitted herewith or, were submitted in the parent or grant of relevancy or any readily available English translations of pertiable the examiner.	dparent application, where required, as were either statements nent portions of any non-English language references, or cited
Ш	A check is attached in the amount required under 37 CFR §1.17()).
REL	RELATED CASES Attached is a list of applicant's pending application(s) or issued p A copy of the patent(s) is attached along with PTO 1449.	patent(s) which may be related to the present application.
	A check is attached in the amount required under 37 CFR §1.17(o).
CER	CERTIFICATION Each item of information contained in this information disclosure office in a counterpart foreign application not more than three mo No item of information contained in this information disclosure s office in a counterpart foreign application or, to the knowledge of to any individual designated in 37 CFR §1.56(c) more than three	onths prior to the filing of this statement. tatement was cited in a communication from a foreign patent f the undersigned, having made reasonable inquiry, was known
РЕТ	PETITION	
	Applicant(s) hereby request consideration of the attached informate required under 37 CFR §1.17(p).	ntion. A check is attached in the amount of the Petition fee
DEP	DEPOSIT ACCOUNT Please charge any additional fees for the papers being filed herew overpayment to deposit account number 50-2106. A duplicate con	rith and for which no check is enclosed herewith, or credit any
_	31518 PATENT TRADEMARK OFFICE Date	Respectfully submitted Richard A. Weifeld
		Registration No. 35,299

JUN 0 7 2006 W

FR 1.98(A)(1) Reference Citation

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT (Rev. 5/14/2003)

NEIFELD REF: OSEMDB15UPCTUS	APPLICATION NO: 10/579,537		
FIRST NAMED INVENTOR: Braddock			
FILING DATE: 5/16/2006	GROUP ART UNIT: Unknown		

LISTING OF UNITED STATES PATENTS

EXAMINER INITIALS	REFERENCE NUMBER (U SERIES)	PATENT NUMBER	ISSUE DATE	NAME OF PATENTEE OR APPLICANT	PAGE/LINE AND FIGURE/ELEMENT OF RELEVANT MATERIAL AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	U-001	3,950,273	4-1976	Jones	
	U-002	4,404,265	9-1983	Manasevit	
	U-003	4,410,902	10-1983	Malik	
	U-004	4,416,952	11-1983	Nishizawa et al.	
	U-005	4,561,915	12-1985	Mito	
	U-006	4,624,901	11-1986	Glass	
	U-007	4,671,777	6-1987	van Esdonk et al.	
	U-008	4,685,193	8-1987	Faria et al.	
	U-009	4,745,082	5-1988	Kwok	
	U-010	4,802,180	1-1989	Brandle, Jr. et al.	
	U-011	4,843,450	6-1989	Kirchner et al.	
	U-012	4,859,253	8-1989	Buchanan et al.	
	U-013	4,935,789	6-1990	Calviello	
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	U-017	5,170,407	12-1992	Schubert et al.	
	U-018	5,270,798	12-1993	Pao et al.	
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·	U-020	5,386,137	1-1995	Dell et al.	
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	U-023	5,491,712	2-1996	Lin et al.	
	U-024	5,550,089	8-1996	Dutta et al.	
Date:			Examiner's Si	gnature:	

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB15UPCTUS	APPLICATION NO: 10/579,537			
(Rev. 5/14/2003)	FIRST NAMED INVENTOR: Braddock				
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	U-025	5,597,768	1-1997	Passlack et al.	
	U-026	5,640,751	6-1997	Faria	
	U-027	5,665,658	9-1997	Passlack	
	U-028	5,693,565	12-1997	Camilletti et al.	
	U-029	5,729,563	3-1998	Wang et al.	
	U-030	5,767,388	6-1998	Fleisher et al.	
	U-031	5,805,624	9-1998	Yang et al.	
	U-032	5,821,171	10-1998	Hong et al.	
	U-033	5,838,708	11-1998	Lin et al.	
	U-034	5,896,408	4-1999	Corzine et al.	
	U-035	5,930,611	7-1999	Okamoto	
	U-036	5,945,718	8-1999	Passlack et al.	
	U-037	5,953,362	9-1999	Pamulapati et al.	
	U-038	6,006,582	12-1999	Bhandari et al.	
	U-039	6,028,693	2-2000	Fork et al.	
	U-040	6,030,453	2-2000	Passlack et al.	
	U-041	6,045,611	4-2000	Ishii et al.	
	U-042	6,069,908	5-2000	Yuen et al.	
	U-043	6,071,780	6-2000	Okamoto et al.	
	U-044	6,094,295	7-2000	Passlack et al.	
	U-045	6,114,079	9-2000	Christian et al.	
	U-046	6,150,677	11-2000	Tanaka et al.	
	U-047	6,207,976	3-2001	Takahashi et al.	
	U-048	6,252,896	6-2001	Tan et al.	
Date:			Examiner's Si	gnature:	

		5,251,215	5 200.	14.00.000	
	U-048	6,252,896	6-2001	Tan et al.	
Date:			Examiner's Si	gnature:	

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB15UPCTUS	APPLICATION NO: 10/579,537			
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EXAMINER INITIALS	REFERENCE NOUMBER (U SERIES)	PATENT NUMBER	ISSUE DATE	NAME OF PATENTEE OR APPLICANT	PAGE/LINE AND FIGURE/ELEMENT OF RELEVANT MATERIAL AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	U-049	6,313,511	11-2001	Noguchi	
	U-050	6,347,049	2-2002	Childress et al.	
	U-051	6,445,015	9-2002	Braddock	
	U-052	6,451,711	9-2002	Braddock, IV	
	U-053	6,573,528	6-2003	Braddock	
-	U-054	6,670,651	12-2003	Braddock	
	U-055	4,916,498	4-1990	Berenz	
	U-056	6,121,153	9-2000	Kikkawa	
	U-057	6,347,104	2-2002	Dijaili et al.	
	U-058	5,900,653	5-1999	Suzuki et al.	
	U-059	5,739,557	4-1998	O'Neil et al.	
· · · ·	U-060	5,912,498	6-1999	Hobson et al.	
	U-061	2,993,814	7/25/1961	Epprecht et al.	
· ·	U-062	4,239,955	12/16/1980	Cho	
	U-063	4,553,022	11/12/1985	Columbo	
	U-064	4,810,526	3/7/1989	Ito et al.	
	U-065	6,162,300	12/19/2000	Bichrt	
	U-066	6,936,900	8/30,2005	Braddock, IV	1
	U-067	6,989,556	1/24/2006	Braddock, IV	-
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Date:			Examiner's S	ignature:	*

LISTING OF UNITED STATES PUBLISHED APPLICATIONS

NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB15UPCTUS	APPLICATION NO: 10/579,537
(Rev: 5/14/2003)	FIRST NAMED INVENTOR: Braddock	
	FILING DATE: 5/16/2006	GROUP ART UNIT: Unknown

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EXAMIN ER INITIALS	REFERENCE NUMBER (P SERIES)	PUBLICATIO N NUMBER	PUBLICATI ON DATE	NAME OF PATENTEE OR APPLICANT	PAGE/LINE AND FIGURE/ELEMENT OF RELEVANT MATERIAL AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE CITED			
	P-001	2002/0024108	2/28/2002	Lucovsky et al.				
	P-002	2003/0137018	7/2003	Passlack et al.				
	P-003	2002/0113285	8/22/2002	Braddock				
	P-004	2004/0206979	10/21/2004	Braddock				
	P-005	2004/0207029	10/21/2004	Braddock	·			
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Date:	Date: Examiner's Signature:							

37 CIR 1:50(A)(1) Reference Citation							
NEIFELD IP LAW REFERENCE FORM LIST OF REFERENCES CITED BY THE APPLICANT	NEIFELD REF: OSEMDB15UPCTUS	APPLICATION NO: 10/579,537					
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الع	FILING DATE: 5/16/2006	GROUP ART UNIT: Unknown					

ESTING OF FOREIGN AND INTERNATIONAL PATENT DOCUMENTS

/ FOREIGN AND INTERNATIONAL PATENT DOCUMENTS							
EXAMIN ER INITIALS	REFERENCE NUMBER (F SERIES)	PUBLICATI ON NUMBER	PUBLICATI ON DATE	COUNTR Y OR REGION	PAGE/LINE AND FIGURE/ELEMEN T OF RELEVANT MATERIAL	ENGLISH LANGUAGE TRANSLATION ATTACHED? (YES OR NO) AND/OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED	
	F-001	JP 8085873 A	4-1998	Japan	Yoshizawa et al.	yes	
	F-002	GB2047113A	11/26/1980	UK	Page 1, lines 15-21		
	F-003	WO 2005/048318	5/26/2005	PCT			
	F-004	WO [\] 02/12598	2/14/2002	PCT		,	
	F-005	WO θ2/15283	2/21/2002	PCT			
	F-006	WO 02/15285	2/21/2002	PCT			
	F-007	WO 02/15233	2/21/2002	PCT			
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ESTING OF NON PATENT LITERATURE

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EXAMIN ER INITIALS	REFERENC E NUMBER (O Series)	PUBLICATI ON DATE	INCLUDE IN SEQUENCE: Name of first author (in CAPITAL LETTERS), Title in quotation marks, name of publication, date or publication, page numbers, publisher, city of publication, and country of publication	ENGLISH LANGUAGE TRANSLATION ATTACHED? (YES OR NO) AND/OR OR IDENTIFICATION OF PRIORITY APPLICATION IN WHICH REFERENCE IS CITED
	O-001	1994	"1995-1996 Alfa AESAR Catalog," 1994, page 1244, Johnson Matthey Catalog Company, Inc., Ward Hill, MA, US.	
	O-002	6-2001	VURGAFTMAN et al., "Band Parameters for III- V Semiconductors and Their Alloys," J. Appl. Phys. PP 5816-5875 (June 1, 2001).	
	O-003	2003	"Gallium Oxide on Gallium Arsenide: Atomic Structure, Materials, and Devices," Chapter 12, either published or scheduled for publication in "Gallium Oxide on Gallium Arsenide: Atomic Structure, Materials, and Devices," in III-IV Semiconductor Heterostructures: Physics and Devices, edited by W.Z. Cai, Transworld Research Publisher, Kerala, India (2003).	
	O-004	7-1996	PASSLACK et al., "Thermodynamic and photochemical stability of low interface state density Ga2O3-GaAs structures fabricated by in-situ molecular beam epitaxy", Applied Physics Letters, Vol 69, No 3, pps 302-304, 15 July 1996.	
	O-005	6-1997	PASSLACK et al., "Recombination velocity at oxide-GaAs interfaces fabricated by in-situ molecular beam epitaxy", Applied Physics Letters, Volume 68, Number 25, pages 3605-3607, 17 June 1997.	
	O-006	2-1996	PASSLACK et al., "Quasistatic and high frequency capacitance-voltage characterization of Ga2O3-GaAs structures fabricated by in-situ molecular beam epitaxy", Applied Physics Letters, Volume 68, Number 8, pages 1099-1101, 19 February 1996.	·
	O-007	8-1997	UEDA et al., "Anisotropy of electrical and optical properties in B-Ga2O3 single crystals", Applied Physics Letters, Volume 71, Number 7, Pages 933-935, 18 August 1997.	

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	O-008	6-1997	UEDA et al., "Synthesis and control of conductivity of ultraviolet transmitting B-Ga2O3 single crystals", Applied Physics Letters, Volume 70, Number 26, pages 3561-3563, 30 June 1997.	
	O-009	2-2000	KHAN et al., "AlGaN/GaN Metal Oxide Semiconductor Heterostructure Field Effect Transistor", IEEE Electron Device Letters, Volume 21, Number 2, pages 63-65, Feb. 2000.	
	O-010	3-2004	Takebe et al., "GaAs-MISFETs With Insulating Gate Films Formed by Direct Oxidation and by Oxinitridation fo Recessed GaAs Surfaces	
	O-011	1965	Becke et al., "Gallium Arsenide MOS Transistors," Solid-State Electronics, Pergamon Press 1965, Vol. 8, pp. 813-823.	
	O-012	1996	Passlack et al., "C-V and G-V Characterization of In-Situ Fabricated Ga2O3-GaAs Interfaces for Inversion/Accumulation Device and Surface Passivation Applications, Solid-State Electronics, Vol. 39, No. 8, pp. 1133-1136, 1996.	
	O-013	1996	Passlack et al., "GaAs Surface Passivation Using in-Situ Oxide Deposition," Applied Surface Science 104/105 (1996) 441-447.	
	O-014	June 1995	Passlack et al., "Infrared Microscopy Studies on High-Power InGaAs-GaAs-InGaP Lasers with Ga2O3 Facet Coatings," IEEEJournal of Selected Topics in Quantum Electronics, Vol. 1, No. 2, June 1995, pp. 110-116.	
	O-015	12/15/1995	Passlack et al., "Capacitance-Voltage and Current-Voltage Characterization of AlxGa1-xAs-GaAs Structures," J. Appl. Phys. 78 (12), December 15, 1995, pp. 7091-7098.	

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	O-016	1997	Hong et al., "Novel Ga2O3(Gd2O3) Passivation Techniques to Product Low Dit Oxide-GaAs Interfaces," Journal of Crystal Growth 175/176 (1997), pp. 422-427.	
	O-017	May 1996	Hong et al., "Low Interface State Density Oxide-GaAs Structures Fabricated by in Situ Molecular Beam Epitaxy," J. Vac. Sci. Technol. B 14(3), May/Jun 1996, pp. 2297-2300.	
	O-018	Feb 1997	Passlack et al., "Low Dit, Thermodynamically Stable Ga2O3-GaAs Interfaces: Fabrication, Characterization, and Modeling," IEEE Transactions on Electron Devices, Vol. 44, No. 2, February 1997.	
	O-019	12/21/2004	European Patent Office Supplementary European Search Report for Application Number EPO1956104.	
	O-020	6/15/2005	International Search Report for PCT/US04/38235.	
	O-021	10/26/2005	International Search Report for PCT/US04/38582.	
	O-022	10/29/2001	International Search Report for PCT/US01/24263.	
	O-023	4/4/2002	International Search Report for PCT/US01/25150.	
	O-024	12/20/2001	International Search Report for PCT/US01/25259.	
	O-025	1/16/2002	International Search Report for PCT/US01/25161.	
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Printed: June 5, 2006 (6:19pm)

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